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MANUAL PART NUMBER: 400-0517-001

## CP450 Series

# MULTITOUCH TOUCH SCREEN CONTROLLERS USER'S GUIDE

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## PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **CP450** and keep it handy for future reference. These safety instructions are to ensure the long life of your **CP450** and to prevent fire and shock hazards. Please read them carefully and heed all warnings.

### 1.1 GENERAL

- Do not open the unit or power supply case, there are high-voltage components inside.
- There are no user serviceable parts inside. Qualified ALTINEX service personnel must perform all service on the **CP450**.
- Handle the **CP450** carefully.

### 1.2 HANDLING

- For best results, place the **CP450** in a dry area away from dust and moisture.
- To prevent fire or shock, do not expose this unit to water or moisture. Do not place the **CP450** in direct sunlight, near heaters, or heat-radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the **CP450** carefully. Dropping or jarring can damage the unit.
- Do not pull any cables that are attached to the **CP450**.
- Do not place heavy objects on top of the **CP450**.
- If the **CP450** is not used for an extended period, disconnect the adapter from the wall to avoid fire, shock, and loss of power.

### 1.3 CLEANING

- Unplug the **CP450** adapter before cleaning.
- Clean only with a dry cloth. Never use strong detergents or solvents such as alcohol or thinner. Do not use a wet cloth or water to clean the unit. Do not open the unit to clean.

### 1.4 FCC NOTICE

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with instructions found herein, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- Any changes or modifications to the unit not expressly approved by ALTINEX, Inc. could void the user's authority to operate the equipment.

### CP450 SERIES TOUCH SCREEN CONTROLLERS

The **CP450** Series of touch screen controllers are ideal for a wide variety of applications that include the following: multimedia control systems, general computing, advertising, real-time data terminals, interactive self-service centers, digital surveillance, etc. Each controller is a computer running Windows XP Embedded that includes these key features:

- Touch Screen
- Wireless Local Area Network (WLAN)
- Bluetooth Personal Area Network (PAN)
- 2 COM ports and 2 LAN ports
- Integrated Dual Speakers
- Enhanced Write Filter (EWF) Protection
- AVSnap™ Professional AV System Integration Tool

The **CP450** senses “touch” from a finger, stylus, pen, pencil, gloved finger, or other tool. The touch screen is very accurate and responsive to the touch. The **CP450** incorporates effortlessly into PC based control systems.

The two COM ports can control virtually any serial device using standard RS-232 communication. The two LAN ports allow connectivity to a local area network or a direct connection to another TCP/IP device. For added flexibility, consider the **ALTINEX AC301-201** TCP/IP to RS-232 Adapter. This adapter allows RS-232 communication through a standard LAN connection.

The **AC301-201** has both serial (DB9) and network (RJ-45) connections. The **AC301-201** connects to a serial device using its DB9 connection, and to the LAN using standard network cable. AVSnap, HyperTerminal, or other RS-232 communication software can then be used to control the serial device using the IP address of the adapter in place of the COM port. In this way, a single controller can be used to control any number of serial devices using their unique IP address.

The built-in wireless LAN can be used to control remote devices through a wireless router or directly to a remote IP. As an information interface in a classroom, public information kiosk, etc., the wireless connection can also be used to upload real-time data to the **CP450** ensuring the most up-to-date information is available to the user.

The Bluetooth module inside each **CP450** is compatible with most peripheral devices like headsets, barcode readers, printers, cell phones, and more.

The **CP450** can be mounted to a stand for table use; it can be wall or rack mounted. The 7, 8, and 10-inch models have standard 75mm x 75mm VESA mounting on the back of the unit. The 15, 17, and 19-inch models have standard 100mm x 100mm spacing, while the 12-inch has both 75 and 100mm spacing.

AVSnap provides a complete environment for designing simple to sophisticated graphical user interfaces (GUIs). AVSnap is preinstalled on each **CP450** making it easy to integrate into any control environment. Design high-quality GUIs with minimum effort by way of user-friendly toolbars for buttons, volume controls, progress bars, and much more. AVSnap incorporates a simple programming language with an organized interface that makes even complex programming code easy to read and maintain.

Everything needed to start is included in a sample application. Use the predefined procedures and functions to communicate with devices over RS-232 or LAN, or create your own custom subroutines. If you can program Crestron or AMX, you can program AVSnap.

The EWF prevents changes to the internal drive without specific intent and access. This protects the BIOS and operating system files from becoming corrupt due to power outages or other power interruptions.

## TECHNICAL SPECIFICATIONS 3

Specifications are subject to change.  
See [www.altinex.com](http://www.altinex.com) for up-to-date information.

FEATURES/ DESCRIPTION	CP450-007
<b>Details</b>	
LCD Size	7"
Resolution	800 x 480 max.
LCD Colors	262K
CPU	AMD Geode™ LX 800 500 MHz
RAM	512 MB
WLAN	802.11 b/g
PAN	Bluetooth
Solid State Drive (SSD)	CF Type II
<b>External Connections</b>	
12VDC IN	DC Jack (1)
USB 2.0	Type A F (2)
RS-232 COM	DB9 M (2)
LAN (network)	RJ-45 F (2)
Mounting Holes	3x3 in (75x75 mm)
<b>Agency Approval</b>	
EMC	CE, FCC Class B, CCC
Safety	UL, CB
<b>Accessories Included</b>	
Power Adapter+ AC Power Cord	+12VDC
Hardware	Mounting screws
<b>Optional Accessories</b>	
Stand	AC403-101
Panel Mount	AC403-104
Wall Mount	AC403-109

Table 1. CP450-007 General

MECHANICAL	CP450-007
Material	ABS w/ PC Plastic frame
Color	Black
Height	5.5 in (140 mm)
Width	8.9 in (226 mm)
Depth	1.6 in (41 mm)
Weight	1.4 lb (0.6 kg)
Shipping Weight (approx.)	2.8 lb (1.3 kg)
T° Operating	0-50°C
T° Maximum	60°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs (min.)

Table 2. CP450-007 Mechanical

ELECTRICAL	CP450-007
<b>External Connections</b>	
USB 2.0 Voltage	5V
USB 2.0 Current	100 mA max.
LAN Speed	10/100 Mbps
RS-232 Input Range	+/-15V
RS-232 Sensitivity	+/- 3V
Speaker Output	1.5 W max.
<b>Power Consumption</b> <i>(from adapter)</i>	
+12VDC	20W max.

Table 3. CP450-007 Electrical

# SPECIAL APPLICATION

FEATURES/ DESCRIPTION	CP450-008
<b>Details</b>	
LCD Size	8.4"
Resolution	800 x 600 max.
LCD Colors	262K
CPU	AMD Geode™ LX 800 500 MHz
RAM	512 MB
WLAN	802.11 b/g
PAN	Bluetooth
Solid State Drive (SSD)	CF Type II
<b>External Connections</b>	
12VDC IN	DC Jack (1)
USB 2.0	Type A F (2)
RS-232 COM	DB9 M (2)
LAN (network)	RJ-45 F (2)
Mounting Holes	3x3 in (75x75 mm)
<b>Agency Approval</b>	
EMC	CE, FCC Class B, CCC
Safety	UL, CB
<b>Accessories Included</b>	
Power Adapter+ AC Power Cord	+12VDC
Hardware	Mounting screws
<b>Optional Accessories</b>	
Stand	AC403-101
Panel Mount	AC403-104
Wall Mount	AC403-109

Table 4. **CP450-008** General

MECHANICAL	CP450-008
Material	ABS w/ PC Plastic frame
Color	Black
Height	7.2 in (184 mm)
Width	9.2 in (234 mm)
Depth	1.7 in (42 mm)
Weight	1.8 lb (0.8 kg)
Shipping Weight (approx.)	3.1 lb (1.4 kg)
T° Operating	0-50°C
T° Maximum	60°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs (min.)

Table 5. **CP450-008** Mechanical

ELECTRICAL	CP450-008
<b>External Connections</b>	
USB 2.0 Voltage	5V
USB 2.0 Current	100 mA max.
LAN Speed	10/100 Mbps
RS-232 Input Range	+/-15V
RS-232 Sensitivity	+/- 3V
Speaker Output	1.5 W max.
<b>Power Consumption</b> <i>(from adapter)</i>	
+12VDC	20W max.

Table 6. **CP450-008** Electrical

# SPECIAL APPLICATION

FEATURES/ DESCRIPTION	CP450-010
<b>Details</b>	
LCD Size	10.4"
Resolution	800 x 600 max.
LCD Colors	262K
CPU	AMD Geode™ LX 800 500 MHz
RAM	512 MB
WLAN	802.11 b/g
PAN	Bluetooth
Solid State Drive (SSD)	CF Type II
<b>External Connections</b>	
12VDC IN	DC Jack (1)
USB 2.0	Type A F (2)
RS-232 COM	DB9 M (2)
LAN (network)	RJ-45 F (2)
Mounting Holes	3x3 in (75x75 mm)
<b>Agency Approval</b>	
EMC	CE, FCC Class B, CCC
Safety	UL, CB
<b>Accessories Included</b>	
Power Adapter+ AC Power Cord	+12VDC
Hardware	Mounting screws
<b>Optional Accessories</b>	
Stand	AC403-102
Panel Mount	AC403-105
Wall Mount	AC403-109

Table 7. CP450-010 General

MECHANICAL	CP450-010
Material	ABS w/ PC Plastic frame
Color	Black
Height	8.9 in (227 mm)
Width	10.9 in (276 mm)
Depth	2.0 in (51 mm)
Weight	3.1 lb (1.4 kg)
Shipping Weight (approx.)	5.0 lb (2.3 kg)
T° Operating	0-50°C
T° Maximum	60°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs (min.)

Table 8. CP450-010 Mechanical

ELECTRICAL	CP450-010
<b>External Connections</b>	
USB 2.0 Voltage	5V
USB 2.0 Current	100 mA max.
LAN Speed	10/100 Mbps
RS-232 Input Range	+/-15V
RS-232 Sensitivity	+/- 3V
Speaker Output	1.5 W max.
<b>Power Consumption</b> <i>(from adapter)</i>	
+12VDC	25W max.

Table 9. CP450-010 Electrical

# SPECIAL APPLICATION

FEATURES/ DESCRIPTION	CP450-012
<b>Details</b>	
LCD Size	12.1"
Resolution	1024 x 768 max.
LCD Colors	262K
CPU	AMD Geode™ LX 800 500 MHz
RAM	512 MB
WLAN	802.11 b/g
PAN	Bluetooth
Solid State Drive (SSD)	CF Type II
<b>External Connections</b>	
12VDC IN	DC Jack (1)
USB 2.0	Type A F (2)
RS-232 COM	DB9 M (2)
LAN (network)	RJ-45 F (2)
Mounting Holes	3x3 in (75x75 mm) and 4x4 in (100x100 mm)
<b>Agency Approval</b>	
EMC	CE, FCC Class B, CCC
Safety	UL, CB
<b>Accessories Included</b>	
Power Adapter+ AC Power Cord	+12VDC
Hardware	Mounting screws
<b>Optional Accessories</b>	
Stand	AC403-102
Panel Mount	AC403-105
Wall Mount	AC403-109

Table 10. CP450-012 General

MECHANICAL	CP450-012
Material	ABS w/ PC Plastic frame
Color	Black
Height	9.7 in (246 mm)
Width	12.0 in (304 mm)
Depth	2.0 in (51 mm)
Weight	4.0 lb (1.8 kg)
Shipping Weight (approx.)	5.6 lb (2.5 kg)
T° Operating	0-50°C
T° Maximum	60°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs (min.)

Table 11. CP450-012 Mechanical

ELECTRICAL	CP450-012
<b>External Connections</b>	
USB 2.0 Voltage	5V
USB 2.0 Current	100 mA max.
LAN Speed	10/100 Mbps
RS-232 Input Range	+/-15V
RS-232 Sensitivity	+/- 3V
Speaker Output	1.5 W max.
<b>Power Consumption</b> <i>(from adapter)</i>	
+12VDC	29W max.

Table 12. CP450-012 Electrical



# SPECIAL APPLICATION

FEATURES/ DESCRIPTION	CP450-015
<b>Details</b>	
LCD Size	15"
Resolution	1024 x 768 max.
LCD Colors	262K
CPU	Intel® Celeron® Mobile 1GHz
RAM	1 GB
WLAN	802.11 b/g
PAN	Bluetooth
Solid State Drive (SSD)	CF Type II
<b>External Connections</b>	
12VDC IN	DC Jack (1)
USB 2.0	Type A F (4)
RS-232 COM	DB9 M (2)
LAN (GbE)	RJ-45 F (2)
VGA Out	15-PIN HD F (1)
AUDIO Out	3.5 mm F (1)
External SATA	eSATA type I (1)
Mounting Holes	4x4 in (100x100 mm)
<b>Agency Approval</b>	
EMC	CE, FCC Class B, CCC
Safety	UL, CB
<b>Accessories Included</b>	
Power Adapter+ AC Power Cord	+12VDC
Hardware	Mounting screws
<b>Optional Accessories</b>	
Stand	AC403-103
Panel Mount	AC403-106
Wall Mount	AC403-110

Table 13. CP450-015 General

MECHANICAL	CP450-015
Material	ABS w/ PC Plastic frame
Color	Black
Height	12.2 in (309 mm)
Width	15.5 in (394 mm)
Depth	2.4 in (61 mm)
Weight	8.2 lb (3.7 kg)
Shipping Weight (approx.)	10.1 lb (4.6 kg)
T° Operating	0-45°C
T° Maximum	60°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs (min.)

Table 14. CP450-015 Mechanical

ELECTRICAL	CP450-015
<b>External Connections</b>	
USB 2.0 Voltage	5V
USB 2.0 Current	100 mA max.
LAN Speed	1000 Mbps (GbE)
RS-232 Input Range	+/-15V
RS-232 Sensitivity	+/- 3V
Speaker Output	1.5 W max.
<b>Power Consumption</b> <i>(from adapter)</i>	
+12VDC	43W max.

Table 15. CP450-015 Electrical

# SPECIAL APPLICATION

FEATURES/ DESCRIPTION	CP450-017
<b>Details</b>	
LCD Size	17"
Resolution	1280 x 1024 max.
LCD Colors	16.7M
CPU	Intel® Celeron® Mobile 1GHz
RAM	1 GB
WLAN	802.11 b/g
PAN	Bluetooth
Solid State Drive (SSD)	CF Type II
<b>External Connections</b>	
12VDC IN	DC Jack (1)
USB 2.0	Type A F (4)
RS-232 COM	DB9 M (2)
LAN (GbE)	RJ-45 F (2)
VGA Out	15-PIN HD F (1)
AUDIO Out	3.5 mm F (1)
External SATA	eSATA type I (1)
Mounting Holes	4x4 in (100x100 mm)
<b>Agency Approval</b>	
EMC	CE, FCC Class B, CCC
Safety	UL, CB
<b>Accessories Included</b>	
Power Adapter+ AC Power Cord	+12VDC
Hardware	Mounting screws
<b>Optional Accessories</b>	
Stand	AC403-103
Panel Mount	AC403-107
Wall Mount	AC403-110

Table 16. **CP450-017** General

MECHANICAL	CP450-017
Material	ABS w/ PC Plastic frame
Color	Black
Height	13.8 in (350 mm)
Width	16.9 in (428 mm)
Depth	2.6 in (66 mm)
Weight	11.9 lb (5.4 kg)
Shipping Weight (approx.)	14.9 lb (6.8 kg)
T° Operating	0-45°C
T° Maximum	60°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs (min.)

Table 17. **CP450-017** Mechanical

ELECTRICAL	CP450-017
<b>External Connections</b>	
USB 2.0 Voltage	5V
USB 2.0 Current	100 mA max.
LAN Speed	1000 Mbps (GbE)
RS-232 Input Range	+/-15V
RS-232 Sensitivity	+/- 3V
Speaker Output	1.5 W max.
<b>Power Consumption</b> <i>(from adapter)</i>	
+12VDC	63W max.

Table 18. **CP450-017** Electrical

# SPECIAL APPLICATION

FEATURES/ DESCRIPTION	CP450-019
<b>Details</b>	
LCD Size	19"
Resolution	1280 x 1024 max.
LCD Colors	16.7M
CPU	Intel® Celeron® Mobile 1GHz
RAM	1 GB
WLAN	802.11 b/g
PAN	Bluetooth
Solid State Drive (SSD)	CF Type II
<b>External Connections</b>	
12VDC IN	DC Jack (1)
USB 2.0	Type A F (4)
RS-232 COM	DB9 M (2)
LAN (GbE)	RJ-45 F (2)
VGA Out	15-PIN HD F (1)
AUDIO Out	3.5 mm F (1)
External SATA	eSATA type I (1)
Mounting Holes	4x4 in (100x100 mm)
<b>Agency Approval</b>	
EMC	CE, FCC Class B, CCC
Safety	UL, CB
<b>Accessories Included</b>	
Power Adapter+ AC Power Cord	+12VDC
Hardware	Mounting screws
<b>Optional Accessories</b>	
Stand	AC403-103
Panel Mount	AC403-108
Wall Mount	AC403-110

Table 19. **CP450-019** General

MECHANICAL	CP450-019
Material	ABS w/ PC Plastic frame
Color	Black
Height	15.1 in (383 mm)
Width	18.5 in (470 mm)
Depth	2.6 in (67 mm)
Weight	12.8 lb (5.8 kg)
Shipping Weight (approx.)	14.9 lb (6.8 kg)
T° Operating	0-45°C
T° Maximum	60°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs (min.)

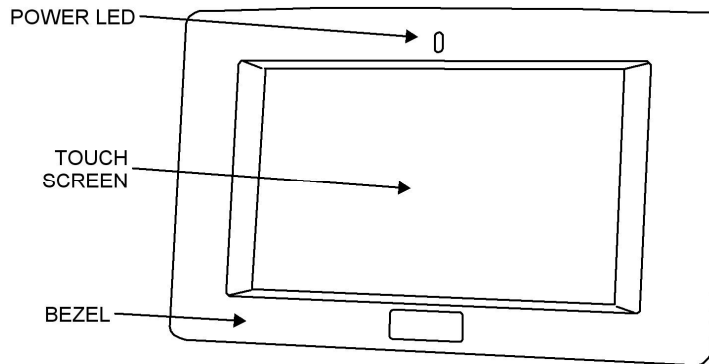
Table 20. **CP450-019** Mechanical

ELECTRICAL	CP450-019
<b>External Connections</b>	
USB 2.0 Voltage	5V
USB 2.0 Current	100 mA max.
LAN Speed	1000 Mbps (GbE)
RS-232 Input Range	+/-15V
RS-232 Sensitivity	+/- 3V
Speaker Output	3 W max.
<b>Power Consumption</b> <i>(from adapter)</i>	
+12VDC	68W max.

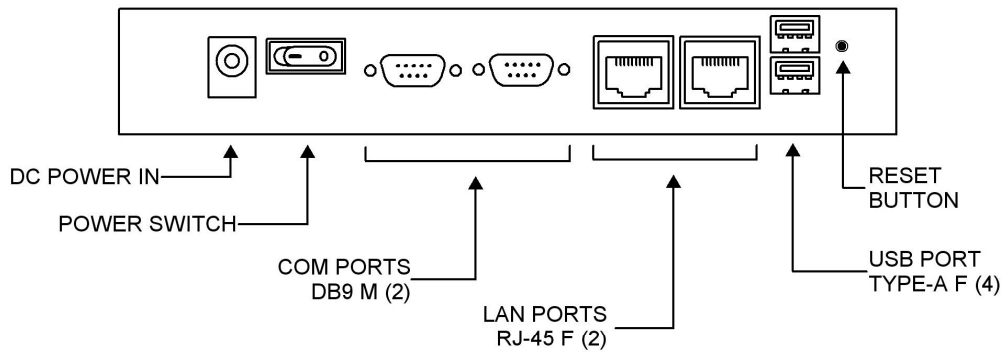
Table 21. **CP450-019** Electrical

## PRODUCT DESCRIPTION

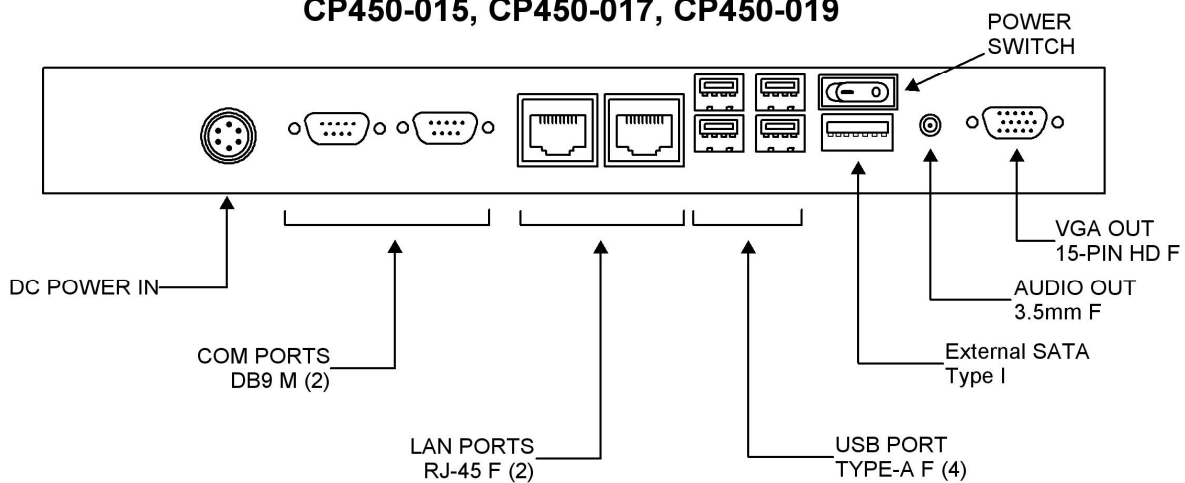
4



### BOTTOM VIEW CP450-007, CP450-008, CP450-010, CP450-012



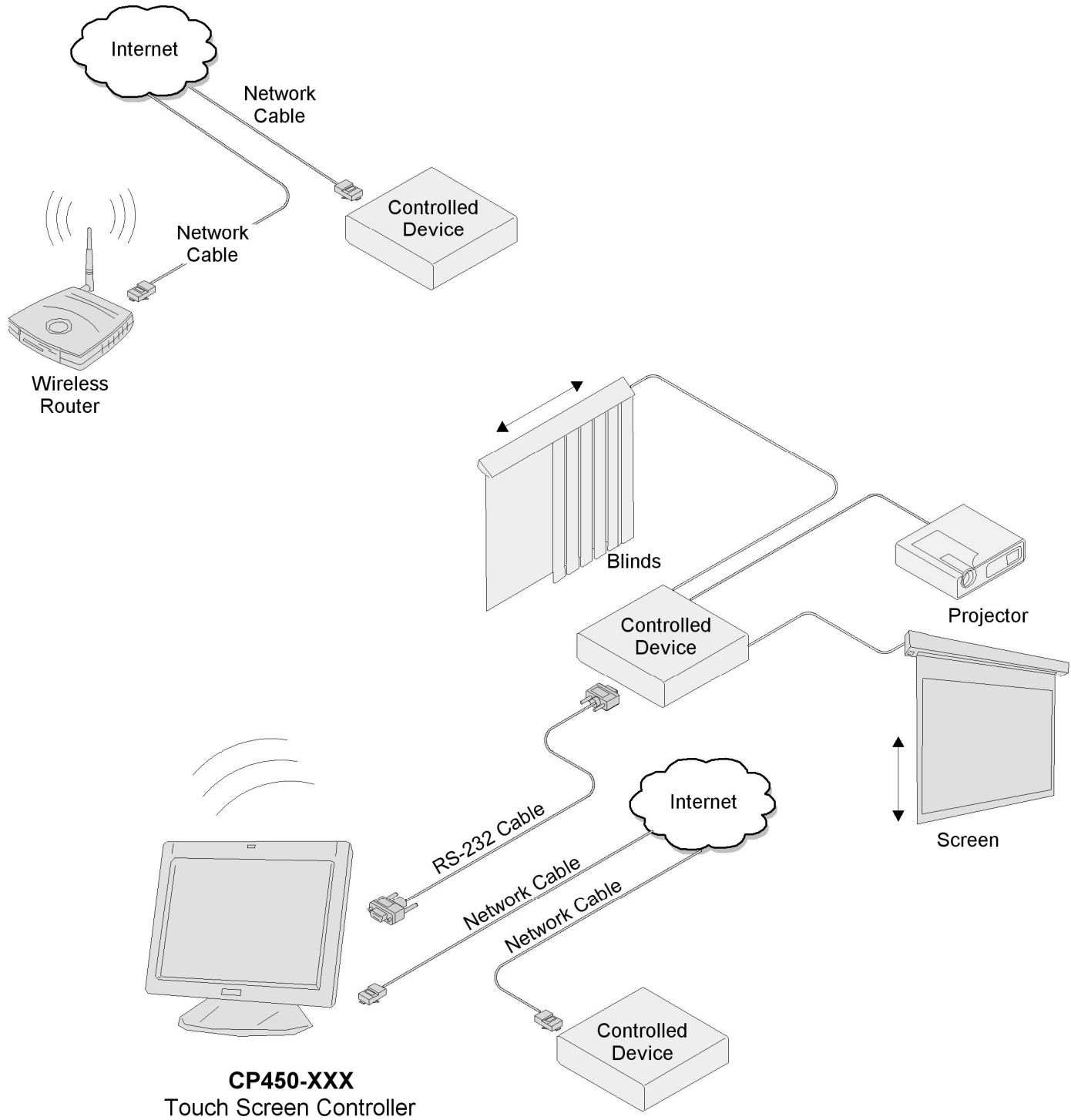
### BOTTOM VIEW CP450-015, CP450-017, CP450-019



## APPLICATION DIAGRAMS

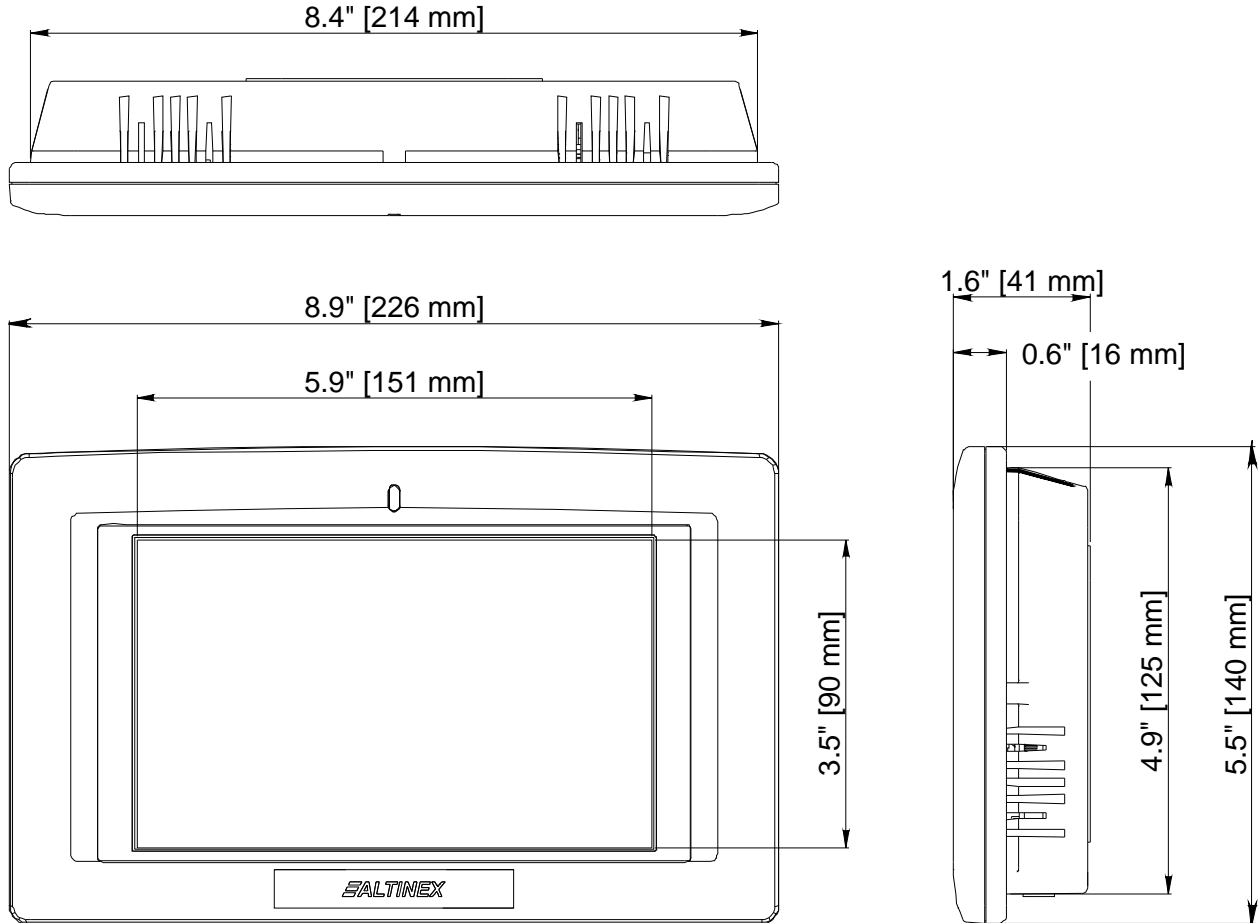
5

### DIAGRAM 1: TYPICAL SETUP



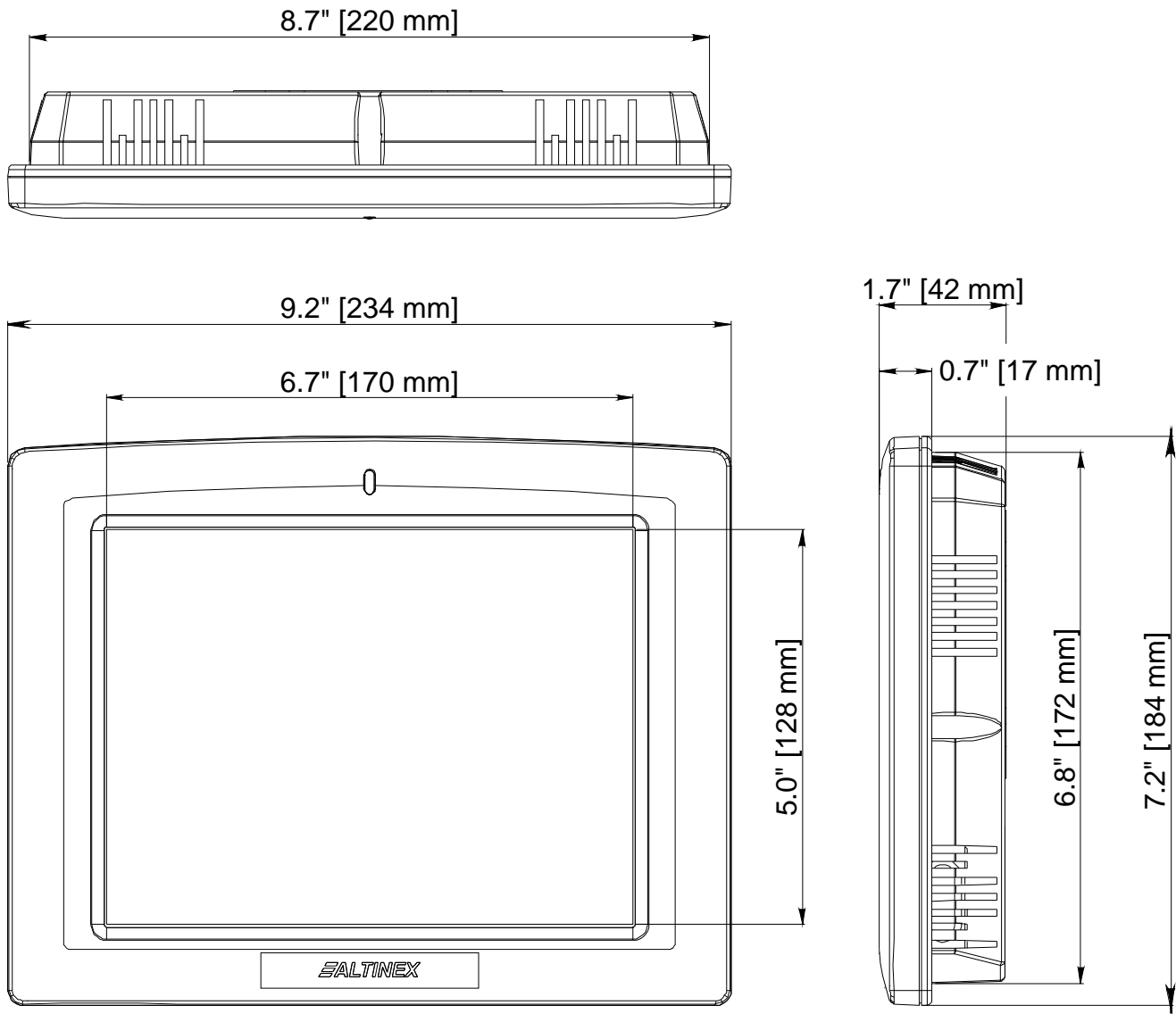
# SPECIAL APPLICATION

**DIAGRAM 2: CP450-007 DIMENSIONS**



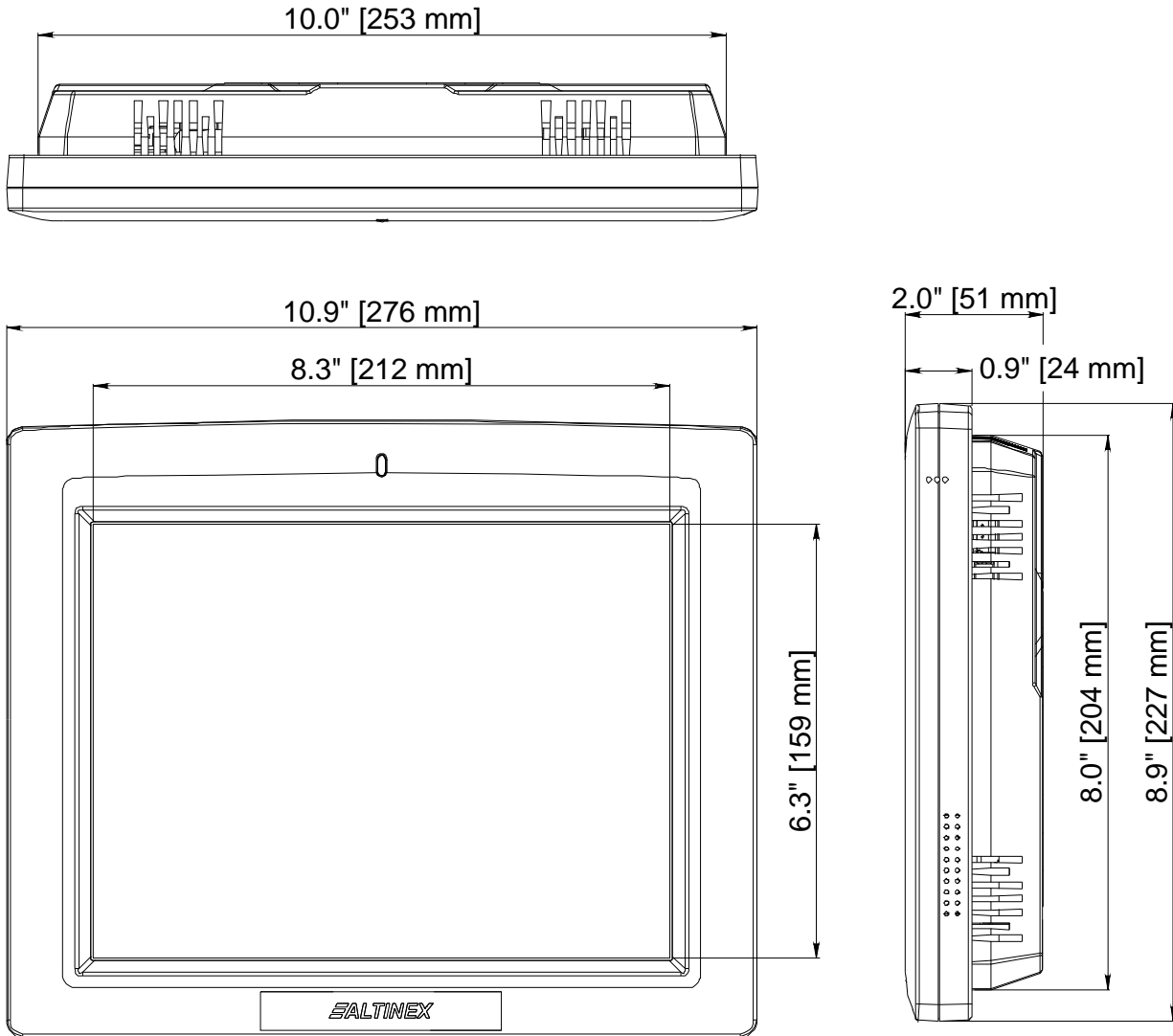
# SPECIAL APPLICATION

**DIAGRAM 3: CP450-008 DIMENSIONS**



# SPECIAL APPLICATION

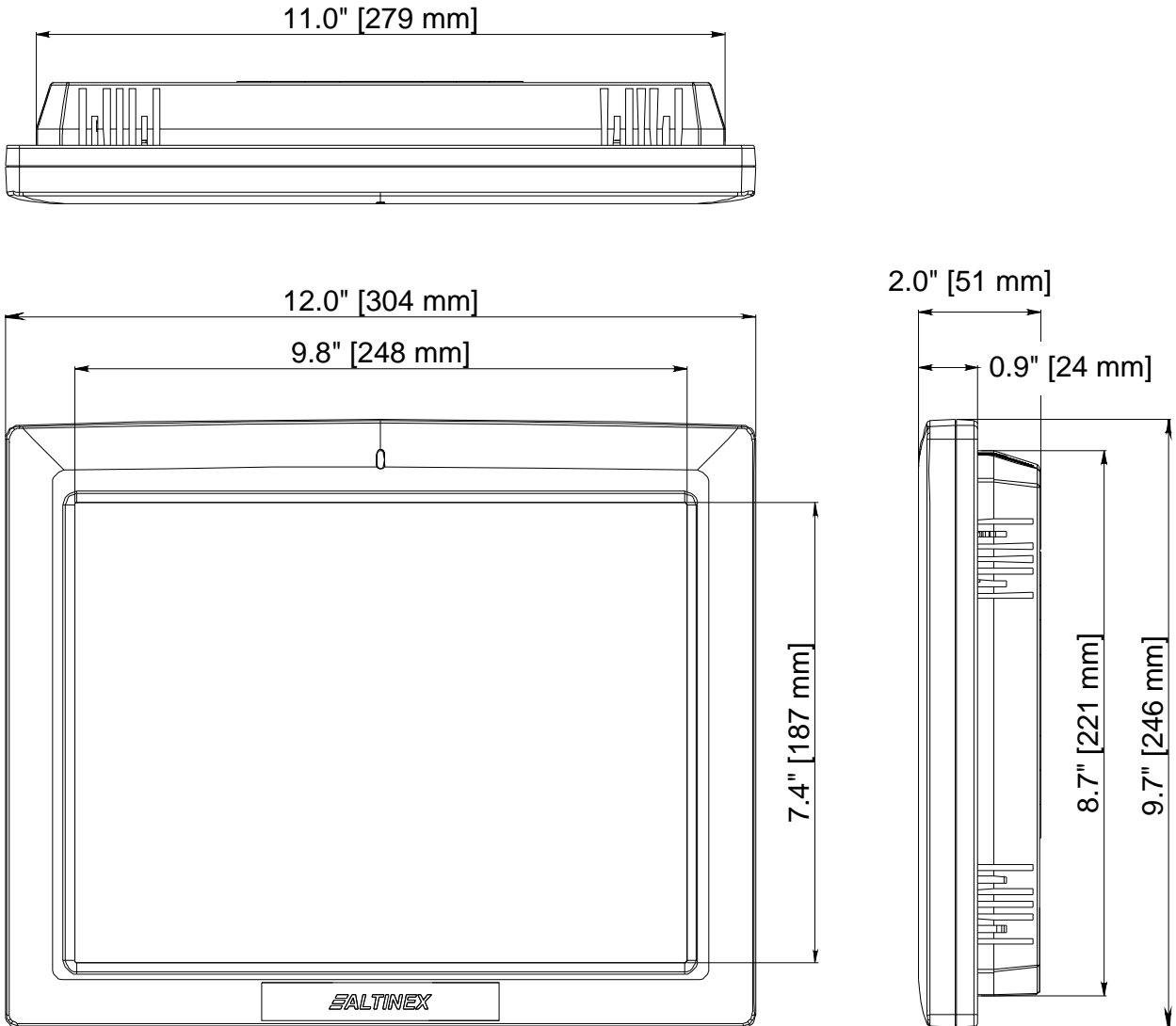
**DIAGRAM 4: CP450-010 DIMENSIONS**





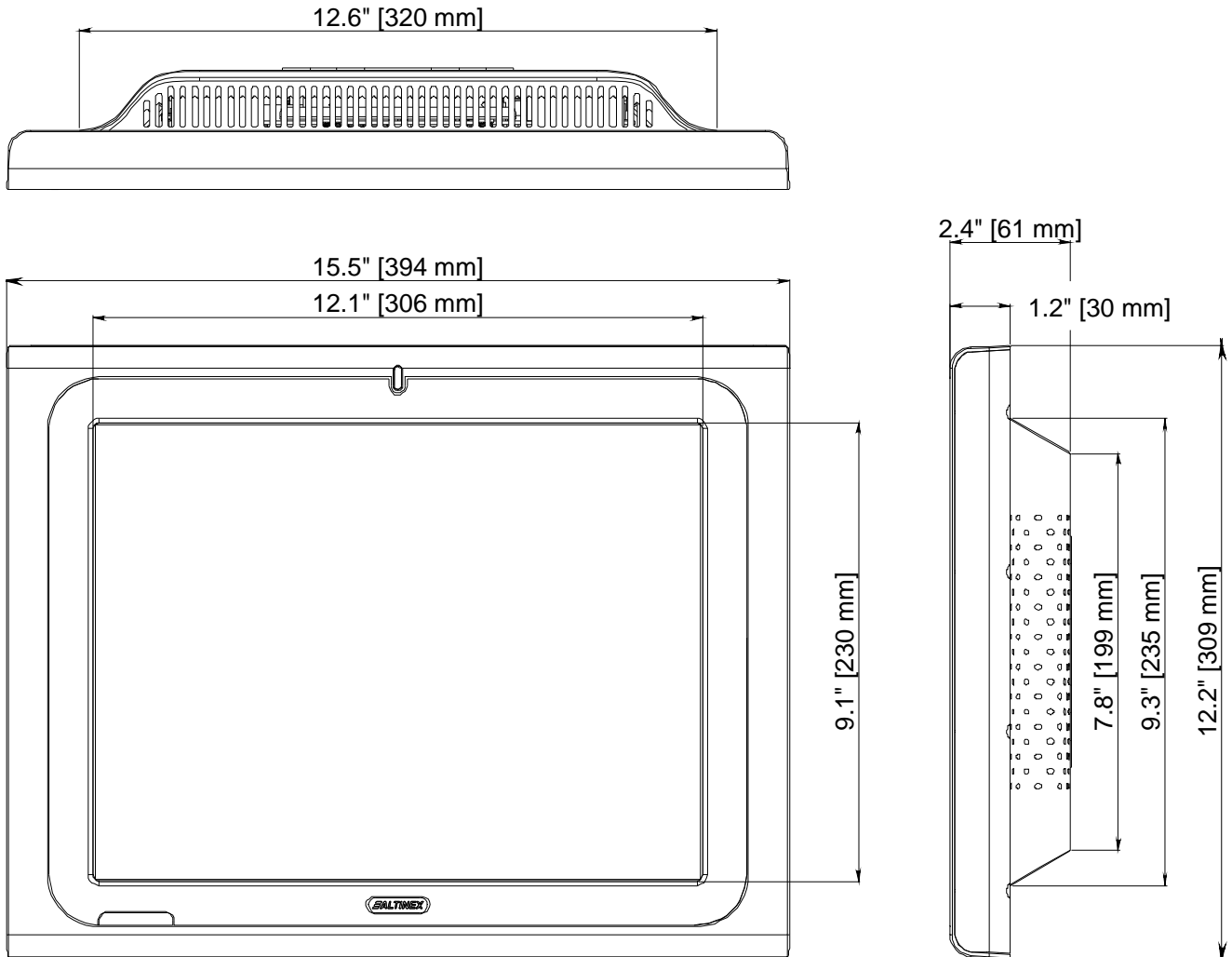
# SPECIAL APPLICATION

**DIAGRAM 5: CP450-012 DIMENSIONS**



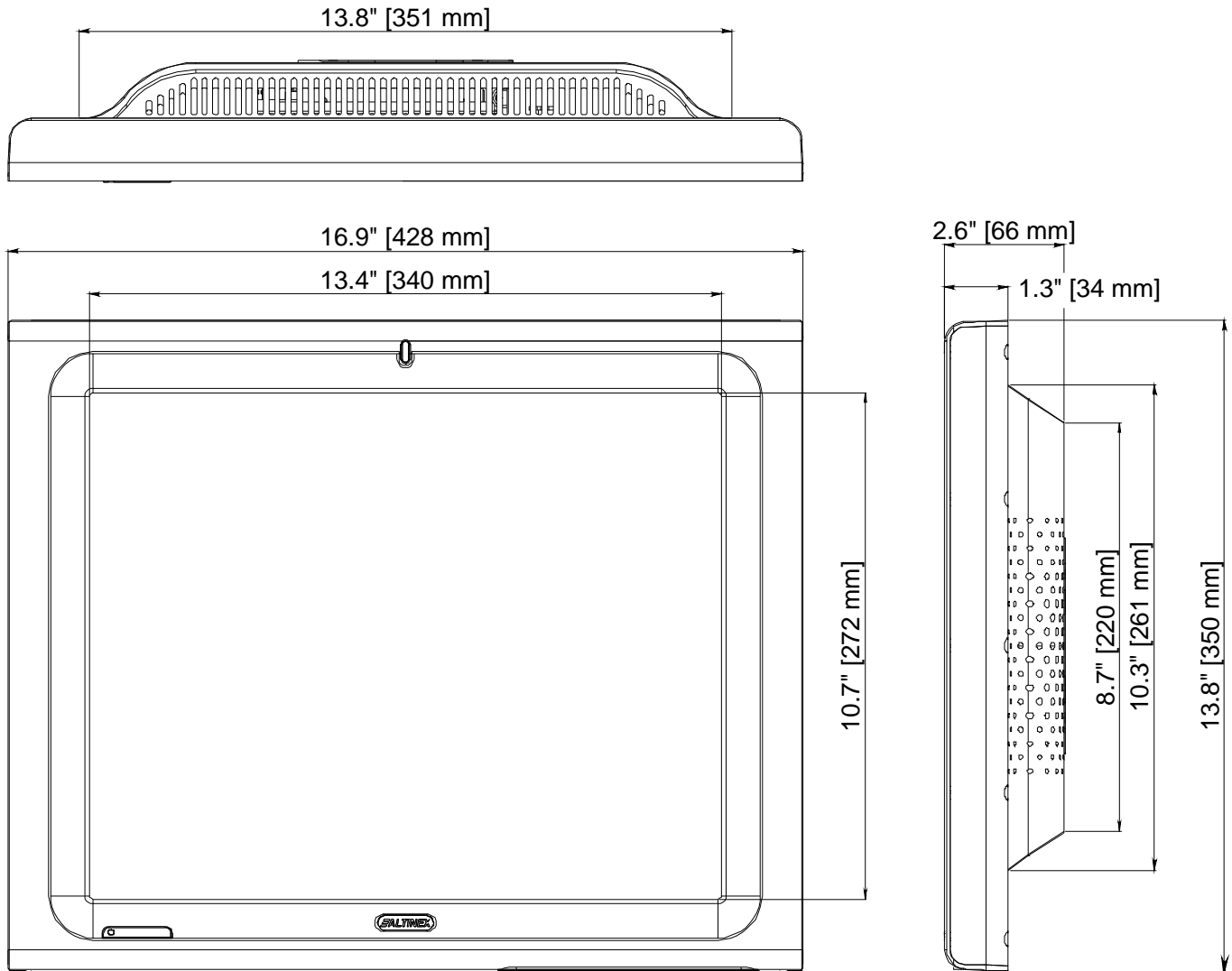
# SPECIAL APPLICATION

**DIAGRAM 6: CP450-015 DIMENSIONS**



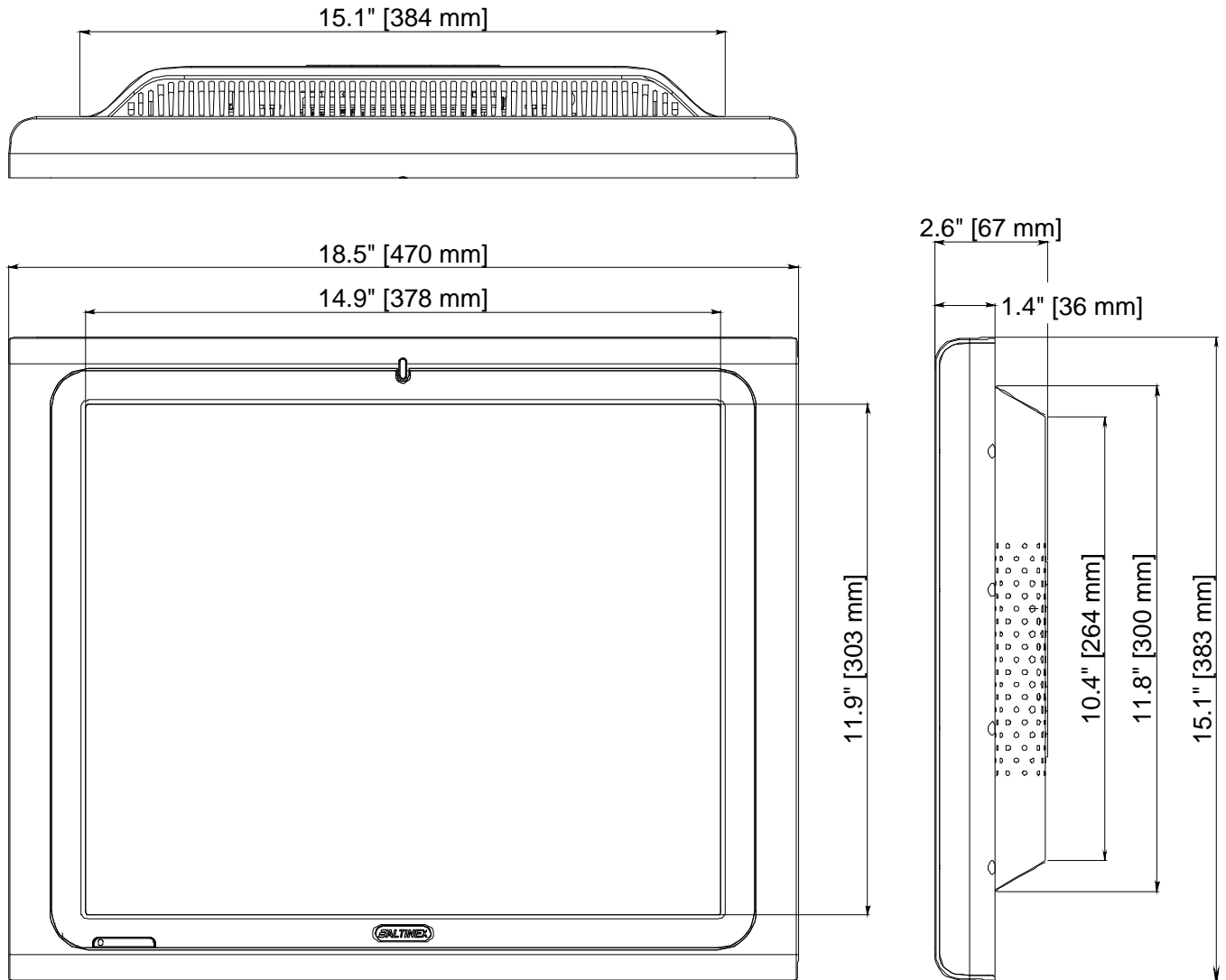
# SPECIAL APPLICATION

**DIAGRAM 7: CP450-017 DIMENSIONS**



# SPECIAL APPLICATION

**DIAGRAM 8: CP450-019 DIMENSIONS**



## INSTALLING YOUR CP450

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The installation and setup steps may be performed concurrently in order to save time.

At the time of purchase, determine if the **CP450** will be mounted on a stand, wall, or panel. The mounting stand or brackets can be purchased from ALTINEX.

**NOTE:** The mounting holes on the rear of the units are VESA standard. The 7-10 inch models use 75x75 mm spacing, the 15-19 inch models use 100x100 mm, and the 12 inch has both.

### INSTALLATION

**Step 1.** Determine the best location for installing the **CP450**. At a minimum, the **CP450** will require AC power for its power adapter.

#### ADDITIONAL CONSIDERATIONS

- If the CP450 will control RS-232 equipment directly from its serial ports, RS-232 cables must be routed to the devices.
- If the CP450 will connect to the network, LAN access and network cables are required.
- Make sure there is access to the USB ports. The USB ports are accessible from the bottom of the unit and should not be blocked by mounting hardware, cables, etc.

**Step 2.** Route all cables required for the **CP450** to the installation locations. Make sure the cables are long enough to allow for service loops and to be routed neatly to their destinations.

**Step 3.** Have qualified personnel install the mounting brackets (or other hardware) for the **CP450**.

### SETUP

**Step 1.** Prepare the control software using your normal software development station. The **CP450** is not required. We recommend using AVSnap as the control software. It is free, easy to use, and has many features designed for use with the **CP450**.

**Step 2.** Debug the control software using the device for which it was written. The **CP450** is a normal computer and its COM and LAN ports work the same as a desktop computer.

**Step 3.** When the control software is complete, copy all necessary files to a USB drive.

**Step 4.** Connect the power adapter provided with the **CP450** to AC power and then to the **CP450**.

**Step 5.** The **CP450** boots automatically and launches a MultiTouch demo written in AVSnap. You can view the demo, or escape out of AVSnap and return to the desktop.

**Step 6.** Install the USB drive into the **CP450** and copy the files over to the "C" drive. If any application software is required, install it at this time. Once all the software has been installed, close all open applications and run the COMMIT batch file located on the desktop. This will commit the changes made to the internal drive.

**NOTE:** If an installation wizard requests a restart to complete the installation, answer NO. The COMMIT batch file must be run first.

**Step 7.** Restart the **CP450** and verify all the changes are present. Place a shortcut to the new control software into the startup folder and remove the AVSnap demo. Run the COMMIT batch file again and restart the **CP450**.

**Step 8.** The unit is now operational. Verify the **CP450** boots up and automatically launches the control software.

## OPERATION

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The **CP450** is designed for use in a fixed application where the system boots up directly into the user application and does not allow access to the operating system. The application and GUI interface are normally created using a standard desktop computer and then installed onto the **CP450** using a USB drive or network connection.

Once set-up, the **CP450** will work trouble-free without user intervention.

### 7.1 POWER UP and SHUTDOWN

The **CP450** boots automatically as soon as power is applied. There is no need to press the power switch on the bottom of the unit. In most installations, the system boots directly into the end-user application.

The **CP450** can be powered down using the shutdown/power off option from the START menu, or directly from an AVSnap application using the "App1.Shutdown" function.

### 7.2 PREPARING CONTROL SOFTWARE

It is not recommended to design and create control software directly on the **CP450**. In most situations, it is easier and faster to write and debug control software on a standard desktop computer and then transfer the completed file when ready. However, if the **CP450** needs to be programmed "in place", use an external USB keyboard and mouse. Simply plug in the devices and wait for the system to recognize the new hardware and load the drivers.

Remember, the **CP450** employs the Enhanced Write Filter (EWF) to protect the contents of the internal drive. Read the next section carefully before attempting to install, create, or edit any data files or applications on the **CP450**. If not executed properly, changes will be lost.

The best way to create and edit on the **CP450** is to use a USB drive plugged into the bottom of the unit and make changes directly to the USB drive then copy the final files to the **CP450**'s "C" drive.

### 7.3 INSTALLING FILES AND APPLICATIONS

The **CP450** utilizes the Windows XP Embedded EWF to protect the **CP450**'s internal memory from accidental or unauthorized changes. The EWF appears to read and write from the internal drive, but executes everything in RAM. All changes WILL be lost after reset or shutdown unless the changes are committed to memory. Three batch files are provided for direct control over the EWF and should be used cautiously.

#### 1. COMMIT.BAT – Write to hard drive

This batch file resides on the desktop and writes the RAM data onto the hard drive for permanent storage while EWF is enabled. Close open applications before running this batch file or the changes may not be committed to memory.

#### 2. ENABLE.BAT – Turn on EWF

This batch file resides in the root directory and turns on the EWF. In this mode, no changes made to the system are saved unless the COMMIT batch file is executed. This is the default condition for all **CP450**s.

#### 3. DISABLE.BAT – Turn off EWF

This batch file resides in the root directory and turns off the EWF. In this mode, the system operates like a normal computer reading and writing data directly to the hard drive.

#### WARNING

When the EWF is turned off, the user MUST shutdown the computer properly. If power is turned off or lost without executing the normal shutdown procedure, data can be lost, or corrupted, including the BIOS and operating system (OS). If the BIOS or OS are damaged, the entire system can become unusable.

#### 7.3.1 INSTALLING LARGE FILES

If the application or file is too large for the available RAM, the operation will be aborted. Use the disable batch file before installing the software. Make sure to reset the EWF when done.

## 7.4 AVSNAP

AVSnap provides a complete environment for designing simple to sophisticated graphical user interfaces (GUIs). AVSnap is preinstalled on each **CP450** making it easy to integrate into any control environment.

Everything needed to start is included in a sample application. Use the predefined procedures and functions to communicate with devices over RS-232 or LAN, or create your own custom functions. In addition to standard communication and control, the functions below are useful for typical touch screen applications and can be assigned to buttons or placed in startup and shutdown routines. The samples shown here require an application object named "App1" to be part of the application.

- App1.Shutdown..... Close the application and turn off the computer.
- App1.SleepMonitor..... Turn off monitor power.
- App1.Quit..... Quit the runtime environment and return to edit mode if running an AMT file. If running an EXE file, quit the EXE and close the application.
- App1.Stop..... Stop the executable application.  
Use with EXE files only!!!
- App1.Powersave..... Hibernate (standby) the computer per display property settings.
- App1.RunScreensaver.... Launch the screensaver. If no screensaver is installed this command has no effect.

## TROUBLESHOOTING GUIDE

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We have carefully tested and found no problems in the supplied **CP450**; however, we would like to offer suggestions for the following:

### 8.1 POWER IS NOT ON

**Cause 1: No AC power.**

*Solution:* Verify the adapter is plugged into a working AC outlet and that the outlet has power. Use only the AC adapter that was shipped with the unit.

**Cause 2: Adapter is not plugged into CP450.**

*Solution:* Verify the DC power plug coming from the AC adapter is plugged all the way into the **CP450**.

**Cause 3: The CP450 has a problem.**

*Solution:* If there is AC power to the adapter and the LED still does not turn on, the **CP450** or the power adapter may require service. Call ALTINEX at (714) 990-2300.

### 8.2 SOFTWARE/FILES ARE MISSING

**Cause 1: Changes were not committed to memory.**

*Solution:* Make changes to the **CP450** then run the COMMIT batch file on the desktop before shutting down or restarting the **CP450**.

**Cause 2: File/application was open when COMMIT was executed.**

*Solution:* Any files that are open for editing must be closed before executing the COMMIT batch file. For best results, close all applications and files before running the COMMIT batch file.

## ALTINEX POLICIES

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### 9.1 LIMITED WARRANTY/RETURN POLICIES

Please see the ALTINEX website at [www.altinex.com](http://www.altinex.com) for details on warranty and return policies.

### 9.2 CONTACT INFORMATION

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